

46. (New) A method according to claim 32, wherein histone deacetylase inhibitors are further used in step d).

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47. (New) A method according to claim 32, wherein said DNA hypomethylating agent is selected from 5-aza-cytidine or 5-aza-2'-deoxycytidine.

48. (New) Cells obtainable by the method according to claim 1.--

REMARKS

Reconsideration is requested.

Claims 1-31 have been canceled, without prejudice. Claims 32-48 have been added. Claims 32-48 are based on now-canceled claims 1-7 and 9-18, respectively. Support for the amended claims may be found throughout the specification. No new matter has been added.

The specification has been amended to include a new Abstract, withdrawal of the objection of the Abstract noted on page 3 of the Office Action dated April 23, 2002 (Paper No. 5), is requested.

The Section 112, first paragraph, rejection of claims 1-18 is moot in view of the above. The applicants respectfully submit the presently claimed invention is supported by enabling disclosure and consideration of the following in this regard is requested.

Claim 32 provides a method for generating cancer-testis antigen presenting cells. The applicants submit that the claimed antigen presenting cells go under a class of TAA

that is comprehensively regulated by DNA methylation (see, page 5, second full paragraph of the specification). The Examiner is urged to appreciate the presently claimed invention provides a method for expressing CTAs in non-tumor cells and the detected CTA have been provided as an exemplification of the disclosed method. The applicants submit that this specification supports the claimed invention. The Examiner is urged to appreciate from the attached tables, which were extracted from the present application, that in healthy subjects the results of the examples are confirmed as in the cancer patients.

EXAMPLE 1

ADHAPI-Cells/B-EBV

RT-PCR analysis of CTA expressed by ADHAPI-Cells/B-EBV and control B-EBV cells

Cancer patients: n=3

5-AZA-CdR	-	+
MAGE-1	0/30/4a	3/34/4
MAGE-2	NT	NT
MAGE-3	0/30/4	3/34/4
MAGE-4	NT	NT
NY-ESO-1	0/30/4	3/34/4
GAGE-1-6	0/30/4	3/34/4
SSX-2	1/32/4	3/34/4

Healthy subjects: n=1

5-AZA-CdR	-	+
MAGE-1	0/10/4a	1/14/4
MAGE-2	NT	NT
MAGE-3	0/10/4	1/14/4
MAGE-4	NT	NT
NY-ESO-1	0/10/4	1/14/4
GAGE-1-6	0/10/4	1/14/4
SSX-2	1/12/4	1/14/4

a positive/tested; NT, not tested;

EXAMPLE 2

ADHAPI-Cells/PWM-B

RT-PCR analysis of CTA expressed by ADHAPI-Cells/PWM-B and control PWM-B cells

Cancer patients: n=2

5-AZA-CdR	-	+
MAGE-1	0/20/4a	2/24/4
MAGE-2	0/20/4	2/24/4
MAGE-3	0/20/4	2/24/4
MAGE-4	0/20/4	2/24/4
NY-ESO-1	0/20/4	2/24/4
GAGE- 1-6	0/20/4	2/24/4
SSX-2	1/21/4	2/24/4

Healthy subjects: n=2

5-AZA-CdR	-	+
MAGE-1	0/20/4a	2/24/4
MAGE-2	0/20/4	2/24/4
MAGE-3	0/20/4	2/24/4
MAGE-4	0/20/4	2/24/4
NY-ESO-1	0/20/4	2/24/4
GAGE- 1-6	0/20/4	2/24/4
SSX-2	0/21/4	2/24/4

a positive/tested; NT, not tested.

EXAMPLE 3

ADHAPI-Cells/CD40L-B

RT-PCR analysis of CTA expressed by ADHAPI-Cells/CD40L-B and control CD40L-B cells

Cancer patients: n=4

5-AZA-CdR	-	+
MAGE-1	0/40/10a	4/410/10

MAGE-2	0/40/10	4/49/10
MAGE-3	0/40/11	4/410/11
MAGE-4	0/40/11	4/411/11
NY-ESO-1	0/40/14	4/414/14
GAGE- 1-6	0/40/14	4/414/14
SSX-2	0/40/14	3/413/14

Healthy subjects: n=10

5-AZA-CdR	-	+
MAGE-1	0/60/10a	6/610/10
MAGE-2	0/60/10	5/69/10
MAGE-3	0/70/11	6/710/11
MAGE-4	0/70/11	7/711/11
NY-ESO-1	0/100/14	10/1014/14
GAGE- 1-6	0/100/14	10/1014/14
SSX-2	0/100/14	10/1013/14

a positive/tested.

EXAMPLE 4

ADHAPI-Cells/PWM-PBMC  
RT-PCR analysis of CTA expressed by ADHAPI-Cells/PWM-PBMC and control  
PWM-PBMC cells

Cancer patients: n=2

5-AZA-CdR	-	+
MAGE-1	0/20/4a	2/24/4
MAGE-2	0/20/4	1/23/4
MAGE-3	0/20/4	2/24/4
MAGE-4	0/21/4	2/23/4
NY-ESO-1	0/20/4	2/24/4
GAGE-1-6	0/20/4	2/23/4
SSX-2	0/20/4	2/23/4

Healthy subjects: n=2

5-AZA-CdR	-	+
MAGE-1	0/20/4a	2/24/4
MAGE-2	0/20/4	2/23/4
MAGE-3	0/20/4	2/24/4
MAGE-4	1/21/4	1/23/4
NY-ESO-1	0/20/4	2/24/4

GAGE-1-6	0/20/4	1/23/4
SSX-2	0/20/4	1/23/4

a positive/tested; NT, not tested.

EXAMPLE 5

ADHAPI-Cells/PHA-PBMC

RT-PCR analysis of CTA expressed by ADHAPI-Cells/PHA-PBMC and control PHA-PBMC

Cancer patients: n=3

5-AZA-CdR	-	+
MAGE-1	0/30/12a	3/312/12
MAGE-2	0/20/3	2/23/3
MAGE-3	0/30/12	3/312/12
MAGE-4	0/30/4	3/34/4
NY-ESO-1	0/30/6	3/36/6
GAGE-1-6	0/20/4	2/24/4
SSX-2	0/30/6	3/36/6

Healthy subjects: n=9

5-AZA-CdR	-	+
MAGE-1	0/90/12a	9/912/12
MAGE-2	0/10/3	1/13/3
MAGE-3	0/90/12	9/912/12
MAGE-4	0/10/4	1/14/4
NY-ESO-1	0/30/6	3/36/6
GAGE-1-6	0/20/4	2/24/4
SSX-2	0/30/6	3/36/6

a positive/tested; NT, not tested.

EXAMPLE 6

ADHAPI-Cells/PHA+PWM-PBMC

RT-PCR analysis of CTA expressed by ADHAPI-Cells/PHA+PWM-PBMC and control PHA+PWM-PBMC

Cancer patients: n=3

5-AZA-CdR	-	+
MAGE-1	0/30/7a	3/37/7
MAGE-2	0/30/7	3/37/7

MAGE-3	0/30/7	3/37/7
MAGE-4	0/30/7	3/37/7
NY-ESO-1	0/30/7	3/37/7
GAGE-1-6	0/30/7	3/37/7
SSX-2	0/30/7	3/37/7

Healthy subjects: n=4

5-AZA-CdR	-	+
MAGE-1	0/40/7a	4/47/7
MAGE-2	0/40/7	4/47/7
MAGE-3	0/40/7	4/47/7
MAGE-4	0/40/7	4/47/7
NY-ESO-1	0/40/7	4/47/7
GAGE-1-6	0/40/7	4/47/7
SSX-2	0/40/7	4/47/7

a positive/tested.

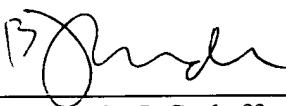
The claims are submitted to be supported by an enabling disclosure.

The Section 112, second paragraph, rejections of claims 8, 15 and 16 are moot in view of the above. The claims have been drafted with the Examiner's objections in mind and the pending claims are submitted to be definite.

The pending claims are submitted to be in condition for allowance and a Notice to that effect is requested.

Respectfully submitted,

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